

Customer No.: 31561
Application No.: 10/707,632
Docket No.: 12398-US-PA

In The Claims:

Claims 1-6 (canceled)

Claim 7 (currently amended) A method of fabricating a semiconductor device, comprising the steps of:

providing a substrate having at least a film layer, an optical isolation layer, an anti-reflection coating and a photoresist layer sequentially formed thereon;

performing a photolithographic process to pattern the photoresist layer so that a portion of the anti-reflection coating is exposed; and

patterning the anti-reflection coating, the optical isolation layer and the film layer ~~using the patterned photoresist layer as a mask~~ to form an opening in the film layer.

Claim 8 (currently amended) The method of claim 7, wherein the step for patterning the anti-reflection coating, the optical isolation layer and the film layer comprises performing an etching operation using the patterned photoresist layer as a mask in which the film layer has an etching rate much greater than the optical isolation layer.

Claim 9 (original) The method of claim 8, wherein the patterned photoresist layer and the patterned anti-reflection coating are also removed in the etching process.

Claim 10 (original) The method of claim ~~7~~ 8, wherein after forming the opening, the method further comprises:

removing the patterned photoresist layer and the anti-reflection coating;

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forming a material layer over the substrate covering the optical isolation layer and completely filling the opening; and

performing a chemical-mechanical polishing operation using the optical isolation layer as a polishing stop layer to remove the material layer over the optical isolation layer.

Claims 11-13 (canceled)

Claim 14 (new) The method of claim 7, wherein the step for patterning the anti-reflection coating, the optical isolation layer and the film layer comprises:

patterning the anti-reflection coating and the optical isolation layer using the patterned photoresist layer as a mask;

removing the patterned photoresist layer and the patterned anti-reflection coating;
and

performing an etching operation using the optical isolation layer as an etching mask to form an opening in the film layer.

Claim 15 (new) The method of claim 14, wherein after forming the opening, the method further comprises:

forming a material layer over the substrate covering the optical isolation layer and completely filling the opening; and

performing a chemical-mechanical polishing operation using the optical isolation layer as a polishing stop layer to remove the material layer over the optical isolation layer.

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Claim 16 (new) The method of claim 14, wherein the film layer has an etching rate greater than that of the optical isolation layer in the etching operation.

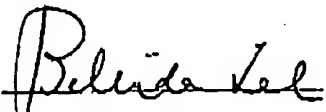
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No fee is believed to be due in connection with the filing of this paper.

Respectfully submitted,

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